

One of several new types which are coming along for C.A.G. training, the Dart Weasel. In this general arrangement drawing it is shown in tricycle trainer form; another version will be available with a side-by-side seater cabin layout.

This will have a Praga engine, but the two-seater production model will probably be fitted with a Mikron.

As an example of ingenuity in design, the primary structure consists of two keel members which take all the load and to which the tail booms are attached. Another member lies transversely across this and is curved down on each side in stub wing form to take the undercarriage and the wing The axles are attached struts. to what may be described as the wing tips of the stub. The two longitudinal members carry the engine mounting and centre-section superstructure, as well as the cabin, which is designed for maximum view and convenience. At the nose is a simple castering wheel.

Performance figures have not yet been released, but the two-seater will have a span of 30ft, and an overall length of 18ft, 9in. It is hoped to sell the machine for about £400.

Makers:—Flt. Lt. Nicholas Comper, 2, The Ridgeway, Walton Bridge, Walton-on-Thames, Surrey. (Tel.: Walton-on-Thames 282.)

DART

AFTER successful work on a number of sailplanes and light aeroplanes (the best-known of which is probably the single-seater Kitten), Mr. A. R. Weyl, of Dart Aircraft, is now proceeding with work on a medium-sized two-seater. There are

actually two types of the Weasel, as the machine is known, but the differences are only those of undercarriage and fuselage. A private-owner type is being designed with a normal undercarriage and a training type with a conventional tricycle undercarriage; the latter has a simple skid to take really heavy tail-down landings. The trainer also has open tandem seating arrangements, while the owner type, though still having full dual control, is a side-by-side-seater cabin machine.

In each case the wing is arranged in three parts—a centre section and two folding outboard wings-while the aerofoil section changes from root to tip with a wash-out similar to that of the Kitten, in which the stalling characteristics were very good. There is a single main spar and an auxiliary rear spar, while the wing is partly plycovered. Mechanically operated split flaps and differentially operated ailerons are fitted. The tail group is fully cantilever and the trimming is carried out by means of tabs. In standard form the fuselage is a plycovered box, but a steel tube structure has been designed as an alternative. An interesting feature of the training type is that the rear seat is raised to give the instructor a rather better view. In common with the increasing practice, the machine is designed to be flown from the front seat. The trainer is fully aerobatic.

Any engine up to 130 h.p. may be installed, but the performances given below are those with a 90 h.p. Cirrus Minor engine.

Weasel data:—Span, 36ft. rin.; length, 27ft. 6in.; all-up weight, 1,565 lb.; weight empty, 925 lb.; wing-loading, 9.1 lb./sq. ft.; power-loading, 17.3 lb./h.p.; maximum speed, 110 m.p.h.; cruising speed, 100 m.p.h.; stalling speed (without flaps), 45 m.p.h.; rate of climb, 600 ft./min.; and cruising range, 325 miles.

Makers:—Dart Aircraft, Ltd., High Street North, Dunstable, Beds. (Dunstable 429.)

DE HAVILLAND

FOR some two years the development of a successor to the famous Moth series has been the special interest of Captain Geoffrey de Havilland, and the announcement of the Civil Air Guard scheme has merely served to speed up the work on the prototypes. The D.H.94, or Moth Minor, is a two-seater open or closed training and touring low-wing monoplane in which constructional simplicity, robustness and exceptionally good flying qualities have been aimed at.

In production form it will be fully aerobatic and for varied reasons, not the least important of which is the provision of a good take-off and climb, the makers have not attempted to obtain economy at the expense of necessary power. The engine will be the new 90 h.p. Gipsy Minor, which may be considered as a smaller and simplified version of the well-known Major.

The low-wing type of monoplane was chosen largely because it permits a maximum view and because the structural differences involved in the open and closed types need to be very small. In each form the Moth Minor has been designed to be flown without ballast from either seat, and the pilot or pupil will normally take that in front. There is a simple, but efficient, form of air brake, and the wings are arranged to fold for housing economy. The structure is straightforward, but no very intimate details have yet been published.

Provisional Moth Minor Data:—Span, 36ft. 7in.; length, 24ft. 6in.; wing-area, 162 sq. ft.; all-up weight, 1,500 lb.; weight empty, 978 lb.; wing-loading, 9.3 lb./sq. ft.; power-loading, 16.7 lb./h.p.; maximum speed, 120 m.p.h.; cruising speed, 105 m.p.h.; cruising range, 300 miles; and price, £575.

With the introduction of the Moth Minor the Hornet Moth is now no longer in production, and the last of the most recent batch to be manufac-